

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

23 -06- 2005

Applicant's or agent's file reference

304850WO/PRS

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/IB2004/004379

International filing date (day/month/year)

21.12.2004

Priority date (day/month/year)

23.12.2003

International Patent Classification (IPC) or both national classification and IPC

H04M 1/02, E05D 11/00

Applicant

Nokia Corporation et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further opinions, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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WRITTEN OPINION OF THE
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International application No.

PCT/IB2004/004379

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language, _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1 - 14, 18</u>	YES
	Claims	<u>15 - 17, 19</u>	NO
Inventive step (IS)	Claims	<u></u>	YES
	Claims	<u>1 - 19</u>	NO
Industrial applicability (IA)	Claims	<u>1 - 19</u>	YES
	Claims	<u></u>	NO

2. Citations and explanations:

The invention is intended to improve a hinge etc.

The following documents are cited:

D1: US 5970580 A

D2: US 6437973 B1

Document D1 (column 2, line 17 - column 3, line 42, figures 1 - 3) discloses a hinge for mechanically connecting two parts of a handheld electronic device, wherein the hinge has a through hole for receiving a cable (8) and a spring washer (13).

Document D2 (column 2, line 35 - column 4, line 32, figures 1 - 2) discloses a hinge module (36) for mechanically connecting two parts (22, 28) of a handheld electronic device, wherein the hinge module has a flat flexible cable (168) with connectors (162, 166) at both ends for connection to the components of the two parts (22, 28).

The invention claimed in claims 1 - 14 differs from what is known from document D1 essentially in that two hinges are mounted on a bracket with the through holes in alignment, i.e. the axes in alignment.

The technical problem is how to provide more space for cables.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V.

It is well known to mechanically connect two parts of a handheld electronic device by the use of two hinge elements. Consequently, it would be obvious to a person skilled in the art to modify the hinge of document D1 by providing two hinges of the type known from document D1 with the through holes in alignment. Therefore, the invention claimed in claims 1 - 14 is novel but lacks an inventive step. Claims 1 - 14 fulfil the requirement of industrial applicability.

The invention claimed in claims 15 - 17 and 19 is essentially known from document D2 and therefore lacks novelty and an inventive step. Claims 15 - 17 and 19 fulfil the requirement of industrial applicability.

The invention claimed in claim 18 differs from what is known from document D2 essentially in that the hinge has a boss with a through hole for the cable.

The technical problem is how to provide an alternative arrangement for the cable.

Document D1 discloses a hinge having a boss with a through hole for the cable. Considering the documents D1 and D2 belong to the same technical field and no unexpected technical effect is obtained, it would be obvious to a person skilled in the art to modify the hinge of document D2 by providing the hinge with a boss having a through hole for the cable. Therefore, the invention claimed in claim 18 is novel but lacks an inventive step. Claim 18 fulfils the requirement of industrial applicability.

To sum up, the invention claimed in claims 1 - 14 and 18 is novel but lacks an inventive step. The invention claimed in claims 15 - 17 and 19 lacks novelty and inventive step. All the claims fulfil the requirement of industrial applicability.